

NEW GENERA AND NEW SPECIES OF NEOTROPICAL COELIDINI
(HOMOPTERA: CICADELLIDAE: COELIDINAE)

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ABSTRACT.—Three new genera and 14 new species in 9 genera in the tribe Coelidiini are described and illustrated. Revised keys to males of species in several genera are also given. New genera include: *Pygmaelidia*, type-species *Pygmaelidia bullata*, n. sp.; *Gracilidia*, type-species *Gracilidia gracilis*, n. sp.; *Fistulidia*, type-species *Fistulidia simplex*, n. sp. Additional new species include the following: *Boliviela bispinosa*, *Boliviela paraortha*, *Tinocripius huggerti*, *Lodia parapectinata*, *Calodicia circulata*, *Dicolecta serrata*, *Evansolidia massa*, *Evansolidia bifurcata*, *Evansolidia digitula*, *Spinolidia sarmenta*, *Spinolidia magna*.

The tribe Coelidiini is very rich in the Neotropical region. Collections during the latter part of the current century have brought to light an additional number of new taxa that are described in this paper. The majority of genera in the region is small in number of species, but those taxa described here and in other papers (Nielson 1983, 1986) flesh out several genera and thus add to our knowledge of the variety and complexity of the group.

Three new genera and 14 new species in these and 7 other genera in the tribe are described and illustrated in this paper. Revised keys to males of species in several genera are also presented to update the classification and provide ready access to more complete keys.

The three genera described below are each represented by a single species and all are from Brasil. The number of monobasic genera is fairly large for the group, and they represent about half the known genera in the Neotropical region.

Pygmaelidia, n. gen.

TYPE-SPECIES.—*Pygmaelidia bullata*, n. sp.

Medium-sized, very broad, robust species.

LENGTH.—Male 7.80–8.00 mm, female 8.90–12.50 mm.

General habitus unlike any other known genus in the tribe owing to its robust size. Similar to *Crinolidia* Nielson in some male genital characters.

Head slightly narrower than pronotum, very broad and short; crown broad; pronotum and scutellum short, only slightly longer than

median length of crown; forewings macropterus in male, micropterus in female, veins and some cells rugulose, 5 apical cells and 3 anteapical cells present, outer one closed; clypeus long and broad, sometimes with a very faint median, longitudinal carina that does not reach basal origin; femoral setal arrangement 2:2:1.

Male genitalia symmetrical; pygofer without processes; segment 10 long and rather broad; dorsal apodeme typical; aedeagus simple, long, tubular; gonopore subapical; connective Y-shaped with short stem; style very long, narrow; plate long and somewhat broad before apex.

The genus is known only from Brasil and is represented by a single species described below. It is distinguished from other genera by its robust size, very broad, short head with rugulose markings on the forewings, and symmetrical aedeagus.

Pygmaelidia bullata, n. sp.

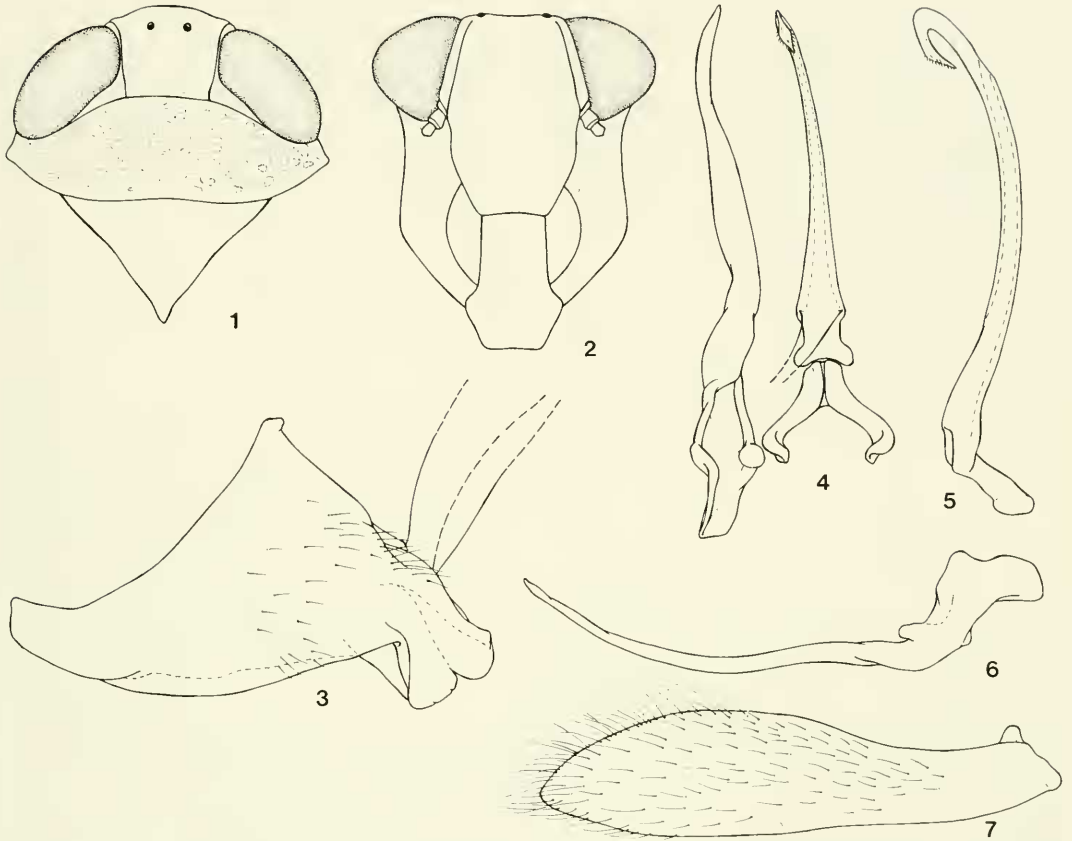
Figs. 1–7

LENGTH.—Male 7.80 mm, female 8.90–12.50 mm.

General color light to deep tannish with pale, corrugated bullae on pronotum and veins of forewings.

Head short and very broad, slightly narrower than pronotum, broadly rounded anteriorly; crown broad, about as wide as eyes, surface finely sculptured; eyes large, elongate; pronotum rather short, median length about as long as median length of crown, surface with irregular, corrugated bullae;

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Figs. 1–7. *Pygmaelidia bullata*, n. sp. 1. Head, pronotum, and scutellum, dorsal view. 2. Face, ventral view. 3. Pygofer, lateral view. 4. Connective, aedeagus, and right style, dorsal view. 5. Aedeagus, lateral view. 6. Right style, lateral view. 7. Plate, ventral view.

scutellum short, median length slightly longer than median length of crown, surface finely sculptured except for median, transverse indentation; forewings with normal venation in male, micropterus in female exposing distal portion of segment 9 and ovipositor, veins and some cells with corrugated bullae, appendix poorly developed, especially in female; clypeus long and broad, sometimes with a very faint, median, longitudinal carina that does not reach basal origin; clypellus long with distal third expanded laterally.

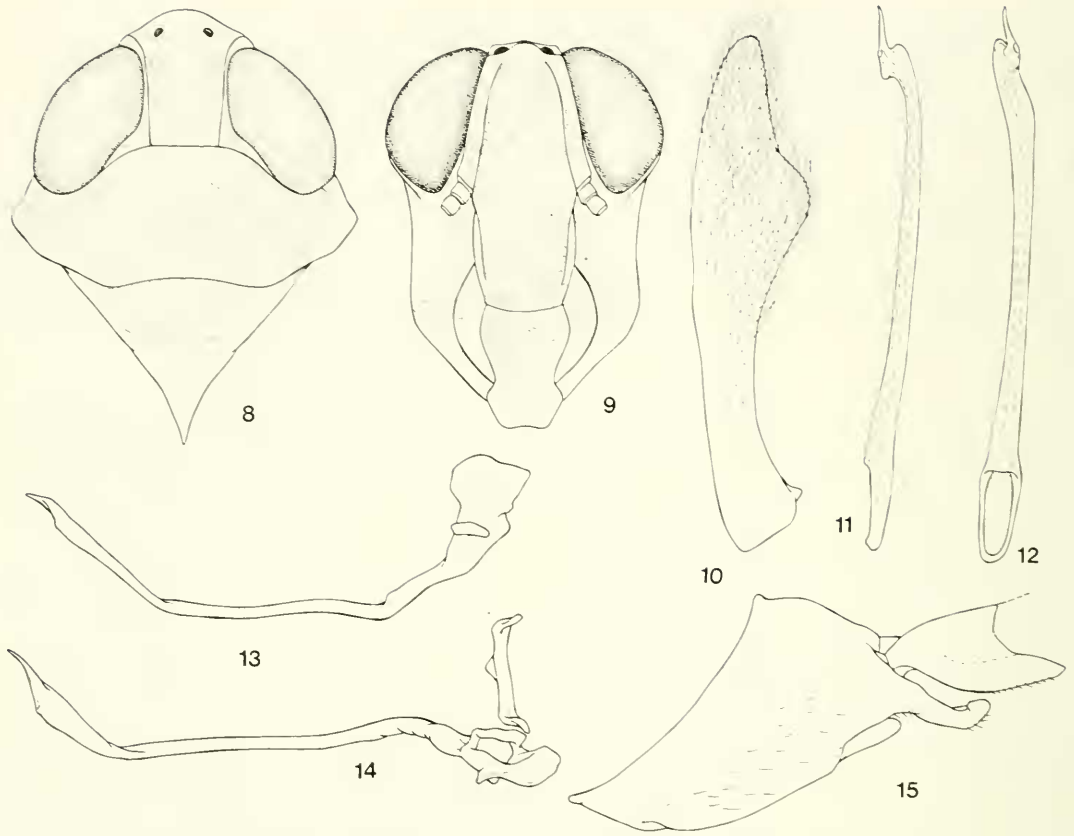
MALE.—Pygofer in lateral view with caudodorsal margin bilobed (Fig. 3); aedeagus symmetrical, long, tubular, and broadly curved in lateral view, strongly recurved distally with minute spines apically, apex sometimes sharply pointed (Fig. 5), somewhat compressed laterally toward apex in dorsal

view, gonopore subapical on ventral margin; style very long, sinuate, tapered apically (Fig. 6); plate long and narrow, enlarged toward apex (Fig. 7).

FEMALE.—Seventh sternum with caudal margin produced medially and broadly convex.

HOLOTYPE (male).—BRASIL: Minas Gerais, Santa Barbara, Caraca, __.I.1970, F. M. Oliveira, B. M. 1971-165 (BMNH). Allotype (female), same data as holotype (BMNH). Paratypes: BRASIL: one female, same data as holotype (BMNH), one male and one female, same data as holotype (author's collection), one female, BRASIL: no locality, __. __. 1895, J. Fallou (MNHN).

REMARKS.—This is the only known species in the genus. Its broad, robust appearance and simple aedeagus will distinguish the species from other genera in the tribe Coelidiini.



Figs. 8-15. *Gracilidia gracilis*, n. sp. 8. Head, pronotum, and scutellum, dorsal view. 9. Face, ventral view. 10. Plate, ventral view. 11. Aedeagus, lateral view. 12. Aedeagus, dorsal view. 13. Right style, lateral view. 14. Connective and right style, dorsal view. 15. Pygofer, lateral view.

Gracilidia, n. gen.

TYPE-SPECIES.—*Gracilidia gracilis*, n. sp.

Medium-sized, slender species.

LENGTH.—Male 7.00-7.50 mm.

General habitus dark brown to black with markings on forewings. Similar to *Boliviela* DeLong but with distinctive male genitalia.

Head distinctly narrower than pronotum; crown produced beyond anterior margin of eyes, much narrower than width of eyes; eyes large, semiglobular; pronotum and scutellum moderately large, each with median length greater than median length of crown; forewings with 5 apical cells and 3 antepical cells, outer one closed; clypeus long and narrow, without a median, longitudinal carina; clypellus swollen basally; femoral setal arrangement 2:2:1.

Male genitalia slightly asymmetrical;

pygofer with moderately long caudodorsal lobe; dorsal apodeme typical; aedeagus simple, long, tubular, with terminal spine, gonopore subapical; connective Y-shaped, stem short; style very long and slender; plate long, heavily setose.

The genus is known only from Ecuador and is represented by a single species. It can be distinguished from *Boliviela* by the simple aedeagus without secondary processes.

Gracilidia gracilis, n. sp.

Figs. 8-15

LENGTH.—Male 7.00-7.50 mm.

General color dark brown to blackish with broad markings on forewings; crown and pronotum dark brown to black with tannish markings or spots; scutellum dark brown to purplish black, sometimes with tan spots;

forewings with broad areas of smokey brown to black in distal half, brownish translucent basally, large, tannish spot near middle of costa, veins with tan spots; face black with numerous tannish spots on clypeus.

Head much narrower than pronotum; crown produced beyond anterior margin of eyes, much narrower than width of eyes, slightly carinate on lateral margins; eyes large, semiglobular; pronotum and scutellum as in description of genus; forewings and venation typical; clypeus long and narrow, without a median, longitudinal carina; clypellus swollen basally.

MALE.—Pygofer in lateral view with moderately long caudodorsal lobe, lobe curved dorsally at apex (Fig. 15); aedeagus long, narrow, tubular throughout, slightly asymmetrical, shaft abruptly curved dorsad before apex, terminating in caudally directed, sharp spine, gonopore subapical on dorsal margin (Fig. 11); style very long and slender, slightly enlarged distally (Fig. 13); plate long and narrow, enlarged subapically on outer margin, profusely setose (Fig. 10).

FEMALE.—Unknown.

HOLOTYPE (male).—ECUADOR: Napo, past road from Baeza to Papallacta, km 186, 13.IV.1977, Elaine R. Hodges (USNM). Paratype: one male, ECUADOR: Napo, Baeza, 12–22.II.1983, L. Huggert (UL).

REMARKS.—This species can be separated from other species of related genera by the simple, elongate, tubular aedeagus with a terminal spine. The aedeagus is remarkably similar to the aedeagus of *Licolidia angusta* Nielson, a member of the tribe Teruliini. However, tribal and other generic characters distinguish *gracilis* from that species.

Fistulidia, n. gen.

TYPE-SPECIES.—*Fistulidia simplex*, n. sp.

Medium-sized, slender species.

LENGTH.—Male 7.50 mm, female 8.40 mm.

General color light to dark brown with tannish markings on forewings. Similar in general habitus to *Crassinolanus* Nielson but with distinctive male genitalia.

Head distinctly narrower than pronotum, subconically produced as in *Crassinolanus*; crown narrow, narrower than width of eyes; eyes large, semiglobular; pronotum and scutellum large, each with median length

greater than median length of crown; forewings with 5 apical cells, 3 antepical cells, outer one closed, appendix well developed; clypeus long and narrow, without a median, longitudinal carina; femoral setal arrangement 2:2:1.

Male genitalia asymmetrical; pygofer with small lobe on caudal margin; aedeagus asymmetrical, simple, very long, tubular; dorsal apodeme attached laterally to base of aedeagus; connective with short stem; style very short; plate long and narrow.

This genus is known only from Brasil and is represented by a single species. It is distinguished from *Crassinolanus* by the tubular aedeagus, short style, and lateral attachment of the dorsal apodeme to the base of the aedeagus.

Fistulidia simplex, n. sp.

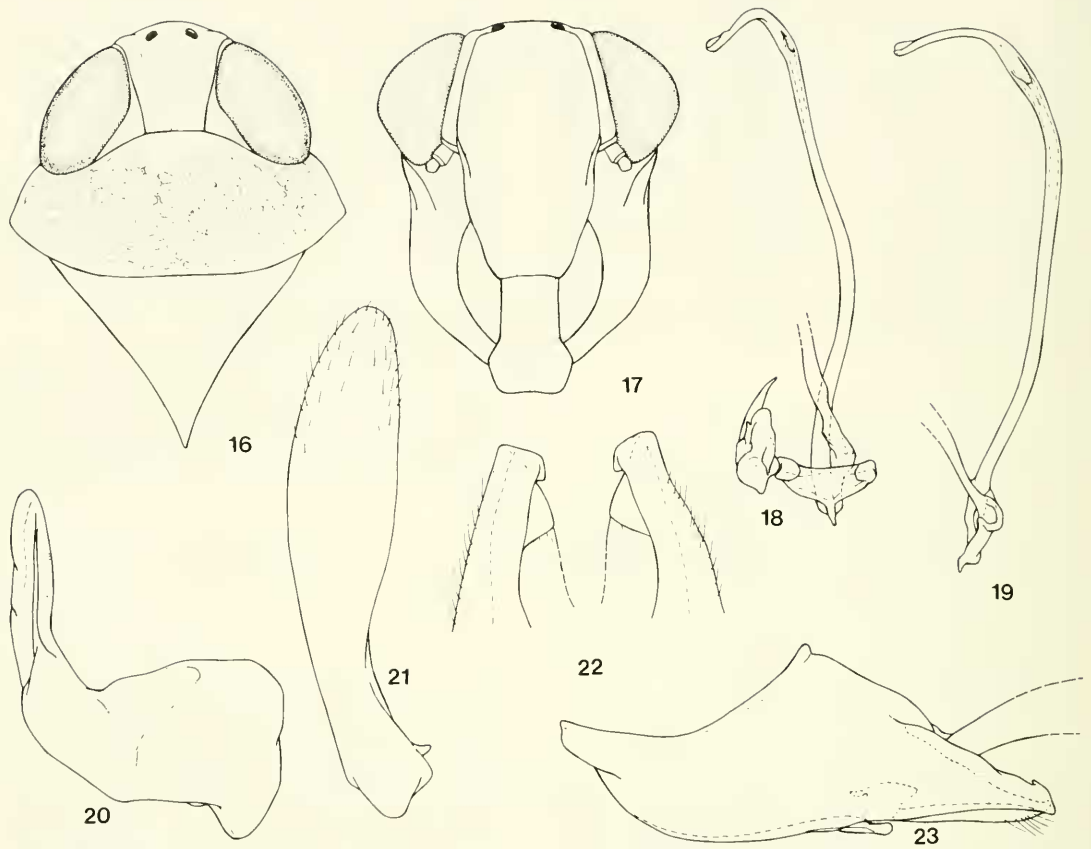
Figs. 16–23

LENGTH.—Male 7.50 mm, female 8.40 mm.

General color light to dark brown with tannish spots and markings on pronotum and forewings; crown tannish; pronotum dark brown with tannish spots on anterior half; forewings dark brown with small to large, tannish spots on costa and broken, tannish transverse band medially; face tan with reddish, longitudinal stripe bordering lateral margins of clypeus.

Head much narrower than pronotum, subconical on anterior margin; crown narrow, lateral margins converging basally, narrower than width of eyes; eyes large, semiglobular; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of pronotum; forewings as in description of genus; clypeus long and narrow, flat, without a median, longitudinal carina; clypellus narrow with lateral margins expanded apically.

MALE.—Pygofer in lateral view with small lobe on middle of caudal margin (Fig. 23); aedeagus asymmetrical, long, tubular in lateral and dorsal views (Figs. 18, 19), curved dorsally at apex in lateral view (Fig. 19), slightly curved laterally in dorsal view (slightly exaggerated in Fig. 18), gonopore subapical on lateral margin before curvature; dorsal apodeme arising laterally from base of aedeagus; style very short, broad in lateral view becoming tapered in distal half (Fig. 20);



Figs. 16–23. *Fistulidia simplex*, n. sp. 16. Head, pronotum, and scutellum, dorsal view. 17. Face, ventral view. 18. Connective, right style, and aedeagus, dorsal view. 19. Aedeagus, lateral view. 20. Right style, lateral view. 21. Plate, ventral view. 22. Terminus of pygofer, dorsal view. 23. Pygofer, lateral view.

plate long and narrow, constricted subbasally (Fig. 21).

FEMALE.—Seventh sternum large, about twice as long as preceding segment, caudal margin truncate.

HOLOTYPE (male).—BRASIL: Reserva Ducke Mn. Am., 5.XII.1968, #2829, E. V. Silva and A. Faustino (INPA). Allotype (female), same data as holotype (INPA). Paratypes: one male, BRASIL: Manaus, Amazonas, 7–19.XII.1977, B. C. Ratcliffe (author's collection).

REMARKS.—This species can be separated from *Crassinolanus dementius* Nielson by the long, tubular aedeagus, short style, and position of the basal attachment of the dorsal apodeme.

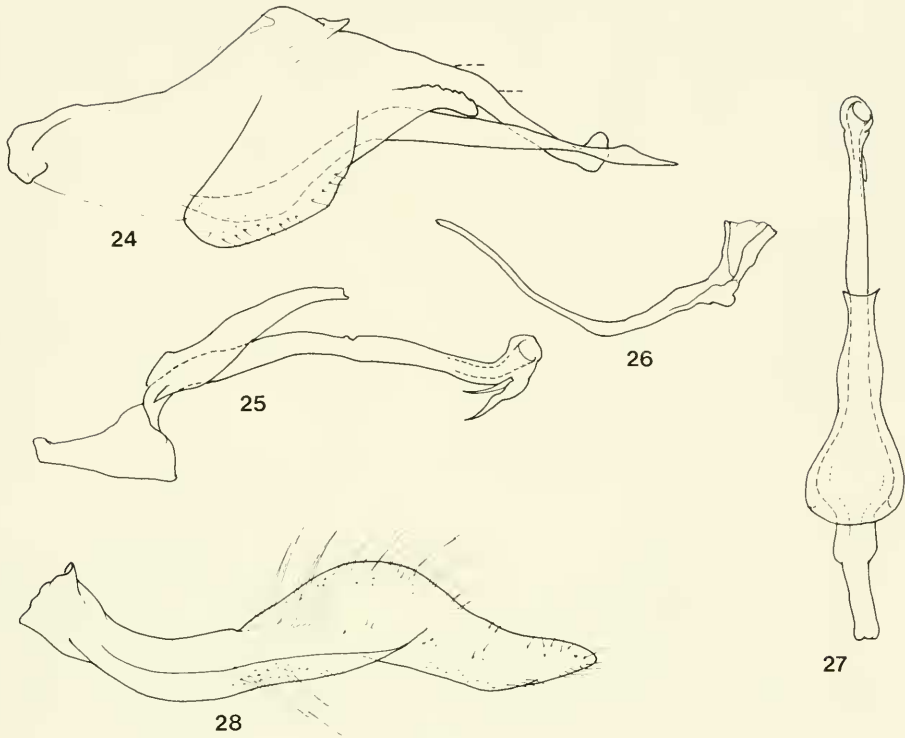
Boliviela DeLong

Six species of *Boliviela* are treated in my paper on the tribe Coelidiini (Nielson 1982).

Two new species are added here with a revised key to the species. The group is apparently restricted to northwestern South America, from Bolivia north to Colombia.

Key to males of *Boliviela*

- 1. Aedeagus with retrorse distal process(es) 2
- Aedeagus with apex curved, process directed distally 3
- 2(1). Aedeagus with single retrorse distal process (Nielson 1982, Fig. 683) *retrorsa* Nielson
- Aedeagus with two retrorse distal processes (Fig. 25) *bispinosa*, n. sp.
- 3(1). Aedeagus with lateral processes or flanges on shaft 4
- Aedeagus not as above 6
- 4(3). Aedeagus with triangular lateral flanges 5
- Aedeagus with long, bladelike lateral flanges (Nielson 1982, Fig. 688) *angustiformis* (Linnavuori)



Figs. 24–28. *Boliviola bispinosa*, n. sp. 24. Pygofer, lateral view. 25. Aedeagus and dorsal apodeme, lateral view. 26. Style, lateral view. 27. Aedeagus and dorsal apodeme, dorsal view. 28. Plate, ventral view.

- 5(4). Aedeagus with symmetrical lateral flanges (Nielson 1982, Fig. 698) *delongi* Nielson
- Aedeagus with asymmetrical lateral flanges (Nielson 1982, Fig. 704) *inflata* Nielson
- 6(3). Aedeagus with paired basal paraphyses 7
- Aedeagus without paraphyses (Nielson 1982, Fig. 715) *linnavuori* Nielson
- 7(6). Aedeagus with basal paraphyses long and acuminate (Nielson 1982, Fig. 709) *ortha* Nielson
- Aedeagus with basal paraphyses long and semi-saggitate (Figs. 35, 36) *paraortha*, n. sp.

Boliviola bispinosa, n. sp.

Figs. 24–28

LENGTH.—Male 8.40 mm.

General color deep tan with dark brown markings. Crown, pronotum, and scutellum deep tan with black markings; forewings deep tan with black markings on apical half and veins marked with orange spots, large, translucent spot about middle of clavus; face tan with brown markings.

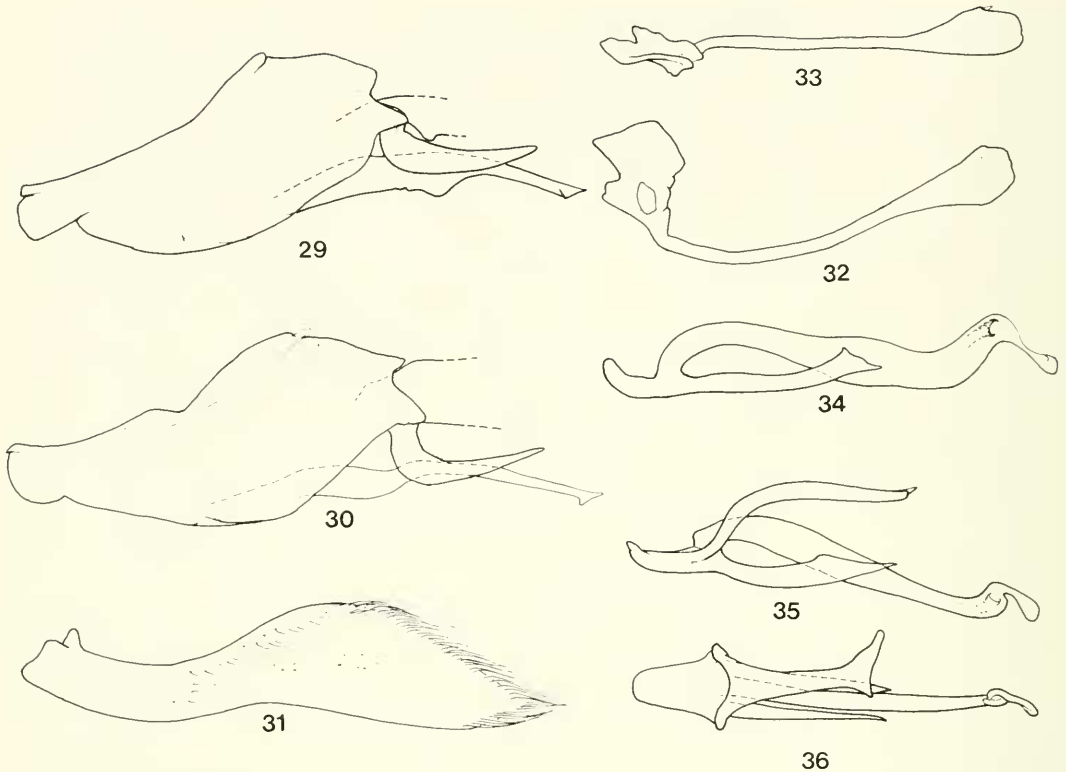
Head much narrower than pronotum, anterior margin narrowly rounded; crown broad,

about as wide as width of eyes; eyes large, elongate-ovoid; pronotum and scutellum large, each with median length greater than median length of crown; forewings and venation typical; clypeus long and broad, without a median, longitudinal carina; clypellus swollen basally.

MALE.—Pygofer in lateral view with very long caudoventral process and moderately long caudodorsal process (Fig. 24), process extending beyond caudodorsal process; aedeagus in lateral view with large base, narrowed and tubular distally with two ventral spines apically, distal spine larger than basal spine, gonopore apical (Fig. 25); dorsal apodeme forked basally and attached near base of shaft before socle; style very long and slender at distal 3/4 (Fig. 26); plate long, sinuate, and profusely pilose at distal half (Fig. 28).

FEMALE.—Unknown.

HOLOTYPE (male).—PERU: Tingo Maria, roadside veg., Los Cuevos Road, SW of town,



Figs. 29–36. *Boliviela paraortha*, n. sp. 29. Pygofer, lateral view. 30. Pygofer, lateral view (showing variation). 31. Plate, ventral view. 32. Right style, lateral view. 33. Right style, dorsal view. 34. Aedeagus and paraphysis, lateral view. 35. Aedeagus, dorsal apodeme, and paraphysis, lateral view (showing variation). 36. Aedeagus, dorsal apodeme, and paraphysis, dorsal view.

forested eastern foothills of Andes, 2,000 ft, 13.VIII.1971, P. S. and H. L. Broomfield, B. M. 1971-486 (BMNH).

REMARKS.—From *B. retrorsa* Nielson, *bispinosa* can be separated by the pair of distal spines on the aedeagus and by the very long caudoventral pygofer process, which extends beyond a moderately long caudodorsal process.

Boliviela paraortha, n. sp.

Figs. 29–36

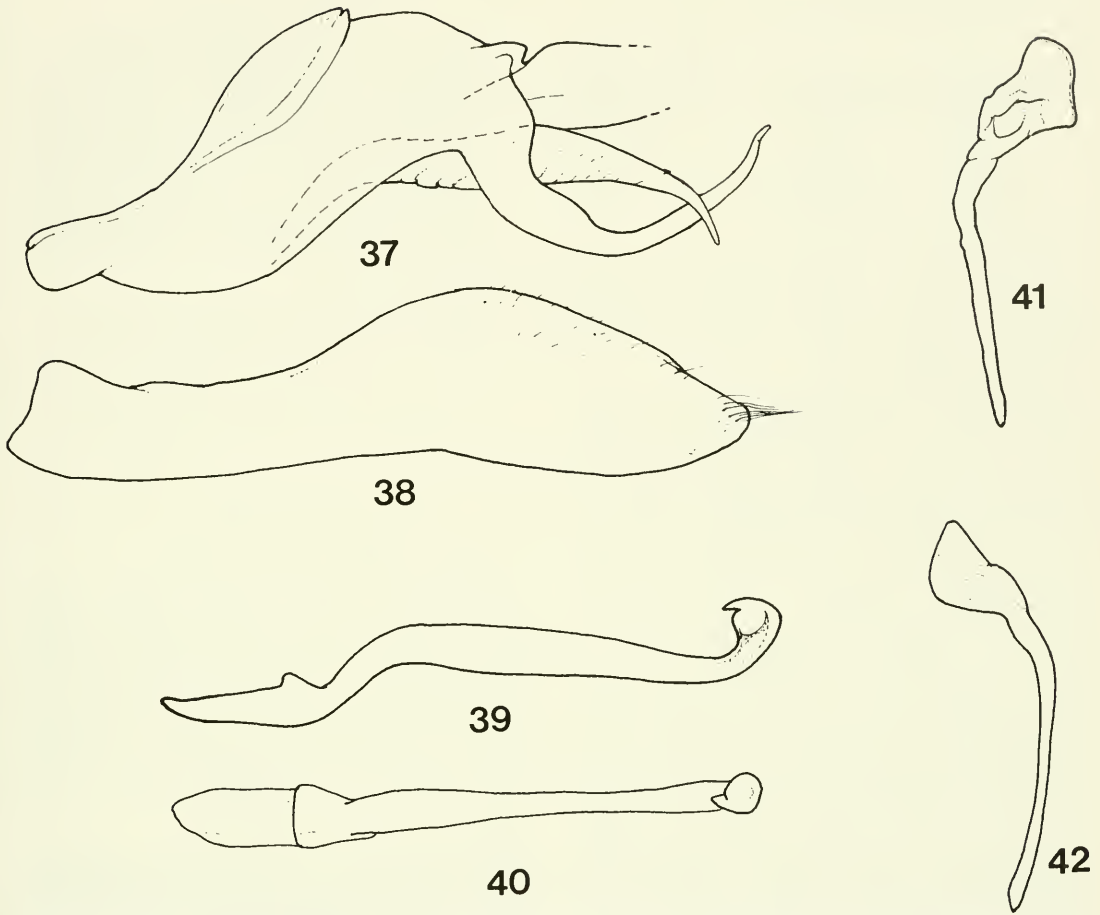
LENGTH.—Male 8.20–8.90 mm.

General color dark brown to blackish with pale, translucent markings on forewings. Crown dark brown to black; pronotum dark brown to black, sometimes with tan markings or spots; scutellum purplish black except for dark brown triangle distally; forewings dark brown to blackish in distal half, translucent basally and with translucent spot on about

middle of costa, veins with small tan spots; face reddish brown with very small, tannish spots.

Head distinctly narrower than pronotum; crown narrow, lateral margins carinate, produced distally beyond anterior margin of eyes, narrower than width of eyes; eyes large, elongate-ovoid; pronotum and scutellum large, each with median length greater than median length of crown; forewings and venation typical; clypeus long and narrow, without a median, longitudinal carina; clypellus swollen basally.

MALE.—Pygofer in lateral view with two long processes on caudal margin, caudoventral process very long, extending beyond apex of caudodorsal process (Figs. 29, 30), sinuate, with small, triangular lobe distally on ventral margin, caudodorsal process short, sickle-shaped; aedeagus in lateral view long, sinuate, constricted subapically, paired ventral



Figs. 37–42. *Tinocripus huggerti*, n. sp. 37. Pygofer, lateral view. 38. Plate, ventral view. 39. Aedeagus, lateral view. 40. Aedeagus, dorsal view. 41. Left style, dorsal view. 42. Left style, lateral view.

paraphyses subbasal which extend to about midlength of aedeagal shaft, paraphyses sword-shaped with triangle lobe subapically (Figs. 35, 36); gonopore subapical on lateral margin; dorsal apodeme bifurcate basally, straddling base of aedeagus; style very long, narrow except basally and distal 1/4 (Fig. 32); plate long, sinuate, broad near middle, and profusely setose (Fig. 31).

FEMALE.—Unknown.

HOLOTYPE (male).—ECUADOR: Napo, Baeza, 12–22.II.1983, L. Huggert (UL). Paratypes: ECUADOR: 4 males, same data as holotype (UL, author's collection).

REMARKS.—This species is very near *B. ortha* Nielson but can be distinguished by the configuration of the ventral paraphysis of the aedeagus and the more tapered plate.

Tinocripus Nielson

Three species of this genus are discussed in my revision of the tribe Coelidiini (Nielson 1982). A fourth species is described herein with a revised key to the species. Ecuador is added to the distribution of the genus, which was previously known only in Peru.

Key to the males of *Tinocripus*

- 1. Pygofer with caudoventral process bladelike 2
- Pygofer with caudoventral process not as above 3
- 2(1). Pygofer with caudoventral process attenuated distally, caudodorsal process long, broad in basal half (Fig. 37) *huggerti*, n. sp.
- Pygofer with caudoventral process narrowed abruptly near apex, caudodorsal process short, lateral margins nearly equal throughout length (Nielson 1982, Fig. 722) *gladius* Nielson

- 3(1). Pygofer with caudoventral process transversely corrugated in distal 1/4 (Nielson 1982, Fig. 717) *spinus* Nielson
 — Pygofer with caudoventral process enlarged distally (Nielson 1982, Fig. 730) ... *schlingeri* Nielson

Tinocripus huggerti, n. sp.

Figs. 37–42

LENGTH.—Male 7.40 mm.

General color deep brown to blackish; crown, pronotum, and scutellum black; forewings smoky black on clavus and basal half; face tannish brown.

Head distinctly narrower than pronotum; crown narrow, produced distally beyond anterior margin of head, narrower than width of eyes; eyes large, semiglobular; crown and pronotum moderately large, each with median length slightly longer than median length of crown; forewings and venation typical; clypeus long and narrow, narrower distally than basally; clypellus swollen basally.

MALE.—Pygofer in lateral view with two long caudal processes, caudoventral process broad at basal 3/4, attenuated distally and curved ventrad, caudodorsal process broad in basal half and abruptly narrowed and curved caudodorsad in distal half (Fig. 37); aedeagus in lateral view narrow, tubular, sinuate, curved dorsad at apex, with subapical constriction and small, blunt spine distally, gonopore subapical (Fig. 39); style long, narrow at distal 3/4 (Fig. 41); plate long, narrow, enlarged near middle on outer margin (Fig. 38).

FEMALE.—Unknown.

HOLOTYPE (male).—ECUADOR: Napo, Baeza, 12–22. II. 1983, L. Huggert (UL).

REMARKS.—From *T. gladius* Nielson, to which it is most closely related, *huggerti* can be separated by configuration of the caudal processes of the pygofer and the longer style. This species is named for Dr. L. Huggert, who has collected much new material on the subfamily Coelidiinae in the Neotropics.

Lodia Nielson

This genus was established with four species and placed in the tribe Coelidiini by Nielson (1982). A new species is added here from Ecuador, and a revised key to the species is also given. *Lodia* is restricted to Ecuador and Peru.

Key to males of *Lodia*

1. Aedeagus with a single subapical spine on shaft 2
- Aedeagus with 2 subapical spines on shaft 3
- 2(1). Aedeagus with subapical spine glabrous (Nielson 1982, Fig. 759) *glabrosa* Nielson
- Aedeagus with subapical spine enlarged distally and toothed (Fig. 46) *parapectinata*, n. sp.
- 3(1). Style with distinct lateral lobe in lateral view (Nielson 1982, Fig. 763) *pectinata* Nielson
- Style without such lobe 4
- 4(3). Aedeagus with distal spine glabrous, nearly reaching to apex of shaft (Nielson 1982, Fig. 772) *proxima* Nielson
- Aedeagus with distal spine toothed, not reaching to apex of shaft (Nielson 1982, Fig. 779) *negans* Nielson

Lodia parapectinata, n. sp.

Figs. 43–49

LENGTH.—Male 7.40–8.10 mm.

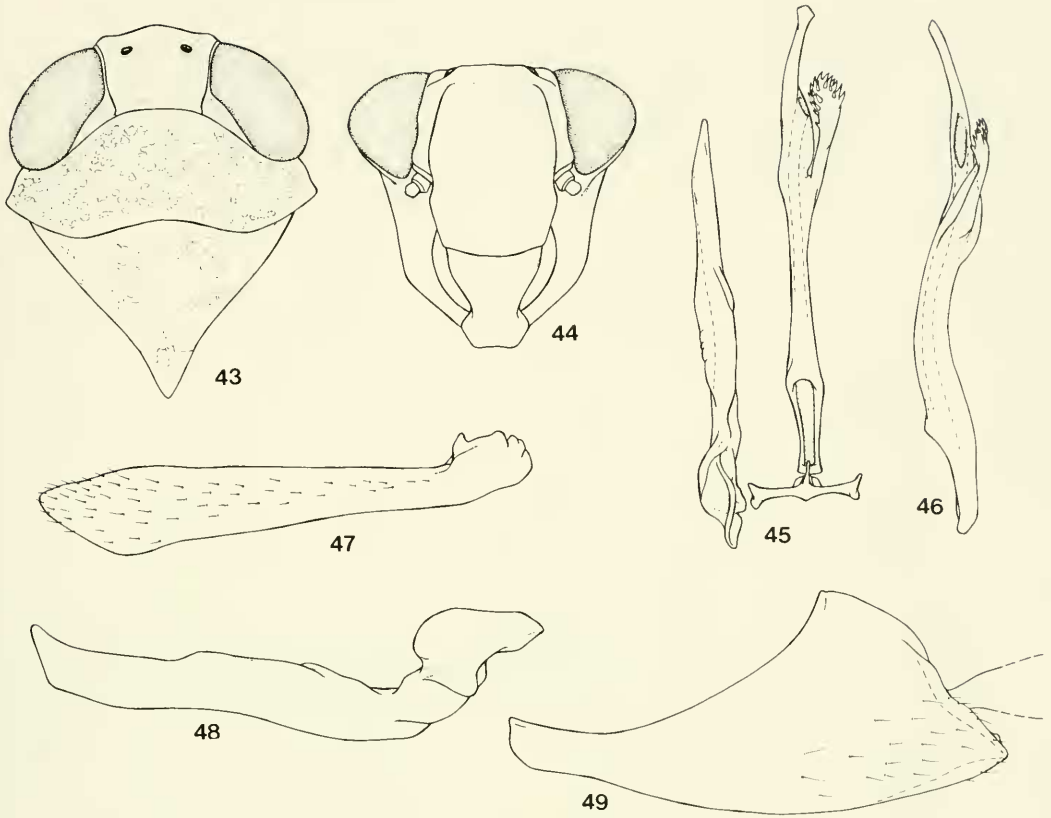
General color dark brown to black, usually with very faint, narrow, pale, sordid yellow, transverse band on about middle of forewings; crown deep tan, sometimes with dark markings basally on disc; pronotum and scutellum black with small, deep tan spots or markings; forewings black with deep orange spots on veins; face black except for deep tan in ocellular area.

Head narrower than pronotum, anterior margin rounded; eyes large, semiglobular; crown broad, width greater than width of eyes; pronotum and scutellum large, each with median length greater than median length of crown; forewings and venation typical; clypeus broad, without a median, longitudinal carina; clypellus swollen basally.

MALE.—Pygofer in lateral aspect without processes or lobes (Fig. 49); aedeagus asymmetrical, in lateral view long, somewhat tubular, sinuate, with prominent, apically dentate spine on lateral margin near middle of shaft (Fig. 46), enlarged at distal half in dorsal view (Fig. 45), gonopore subapical on lateral margin; style long and moderately broad, somewhat compressed laterally (Fig. 48); plate long and narrow (Fig. 47).

FEMALE.—Unknown.

HOLOTYPE (male).—ECUADOR: Napo, Puerto Montufar, 28. IV. 1976, Malaise trap, Jeffrey Cohen (USNM). Paratypes: 81 males, same data as holotype (USNM), 8 males, same data as holotype (CAS, BMNH, author's collection).



Figs. 43-49. *Lodia parapectinata*, n. sp. 43. Head, pronotum, and scutellum, dorsal view. 44. Face, ventral view. 45. Connective, right style, and aedeagus, dorsal view. 46. Aedeagus, lateral view. 47. Plate, ventral view. 48. Right style, lateral view. 49. Pygofer, lateral view.

REMARKS.—This species is similar to *pectinata* Nielson in certain male genitalia characters but is distinguished by the lack of the medial, glabrous spine on the aedeagus, by the lack of the preapical lobe on the inner lateral margin of the style, and by the much less prominent, transverse band on the forewings.

The large series of male specimens collected of this species is unusual for members of the subfamily Coelidiinae, particularly in the Neotropical region where only a few specimens of each sex of most species are taken by sweep-net or by black-light techniques. The use of a Malaise trap, however, may provide a great amount of material on this large and rarely accessible subfamily of leafhoppers.

Calodicia Nielson

Two species are known in the genus (Nielson 1982). A third species is described, and a

revised key to males of all known species is given. *Calodicia* was previously known from Panama and Colombia. The new species from Paraguay suggests disjunctive distribution for the group, but further collecting may bring to light additional species to bridge the gap between the widely separate species.

Key to male of *Calodicia*

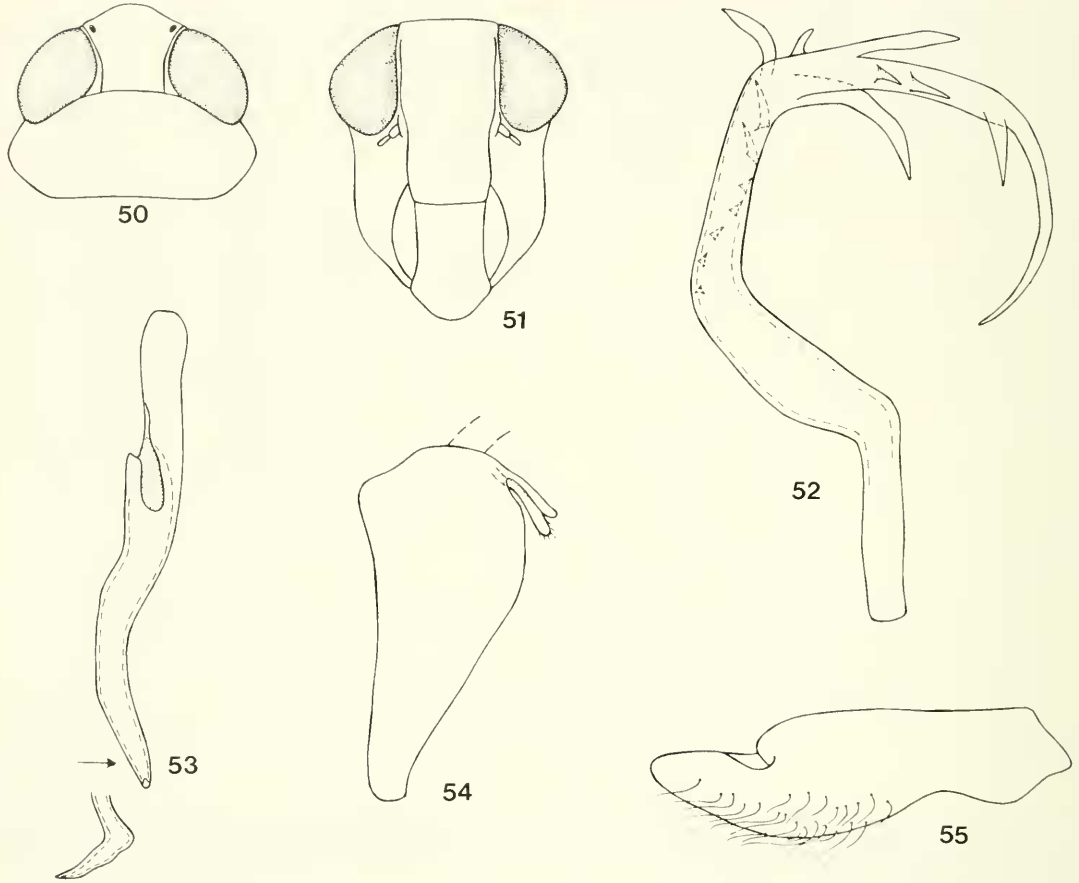
- 1. Style heavily setose 2
- Style glabrous (Fig. 53) *circulata*, n. sp.
- 2(1). Aedeagus very long, strongly recurved at distal 1/3 (Nielson 1982, Fig. 925) *maculipennis* (Spangberg)
- Aedeagus short, broadly curved throughout shaft (Nielson 1982, Fig. 934) *abrupta* Nielson

Calodicia circulata, n. sp.

Figs. 50-55

LENGTH.—Male 7.00 mm.

General color brown; crown tannish with



Figs. 50-55. *Calodicia circulata*, n. sp. 50. Head and pronotum, dorsal view. 51. Face, ventral view. 52. Aedeagus, dorsal view. 53. Right style, dorsal view. 54. Pygofer, lateral view. 55. Plate, ventral view.

dark brown markings basally; eyes light reddish brown; pronotum and scutellum black; forewings light reddish brown except for large, suffused, tannish spot at apex of clavus; face black.

Head narrower than pronotum (Fig. 50), anterior margin slightly produced, nearly rounded anteriorly; eyes large, semiglobular; ocelli near anterior margin of crown; forewings with 5 apical cells, 3 anteapical cells, outer one closed, appendix well developed; clypeus broad throughout length (Fig. 51), without a median, longitudinal carina; clypellus slightly constricted medially and elevated along median line; hind femoral setal arrangement 2:2:1.

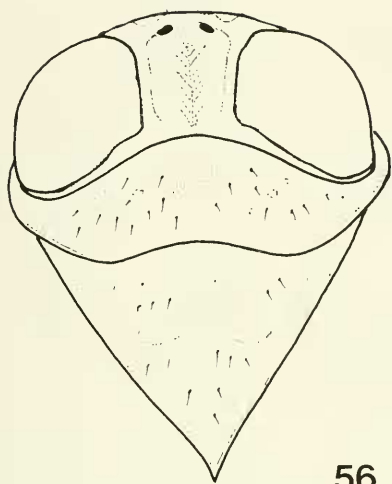
MALE.—Pygofer narrow with pair of narrow caudodorsal lobes directed anteriodorsally

(Fig. 54); aedeagus very long, forming near circle in dorsal view (Fig. 52), shaft with many stout, short to long spines, spines originating near middle of shaft and generally becoming longer toward distal portion of shaft, shaft attenuated distally at apical 1/5; gonopore not apparent; style very long, narrow, tapered toward apex in dorsal view (Fig. 53), apex foot-shaped in lateral view; plate broad, incised on inner lateral margin near apex (Fig. 55).

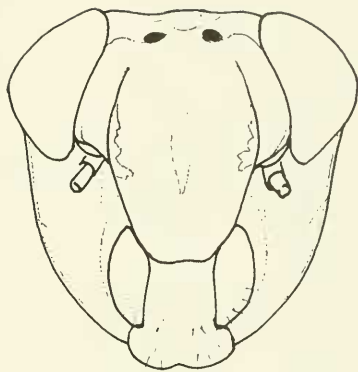
FEMALE.—Unknown.

HOLOTYPE (male).—PARAGUAY: St. Antonio, no date, no collector, in the Melichar collection (MMB).

REMARKS.—*Calodicia circulata* is similar to *C. maculipennis* (Spangberg) in the general shape of the aedeagus but differs in having



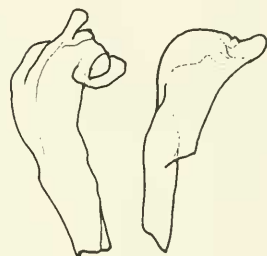
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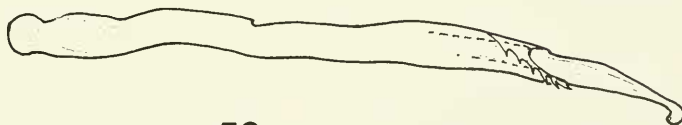
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59

Figs. 56–60. *Dicolectia serrata*, n. sp. 56. Head, pronotum, and scutellum, dorsal view. 57. Face, ventral view. 58. Aedeagus, dorsal view. 59. Aedeagus, lateral view. 60. Base of right style, dorsal and lateral views.

larger and greater number of spines on the shaft, a lack of setae on the style, and an additional, narrow lobe on the caudodorsal margin of the pygofer.

Dicolectia Nielson

One species was described and treated in my revision of the tribe Coelidiini (Nielson 1982). A new species is added with a key to the species. The genus is thus far restricted to Colombia and Peru.

Key to males of *Dicolectia*

- 1. Aedeagus with 2 lateral processes subapically, basal process dentate (Nielson 1982, Fig. 961) *bifurcata* Nielson

— Aedeagus with lateral serrate flange (Fig. 59) *serrata*, n. sp.

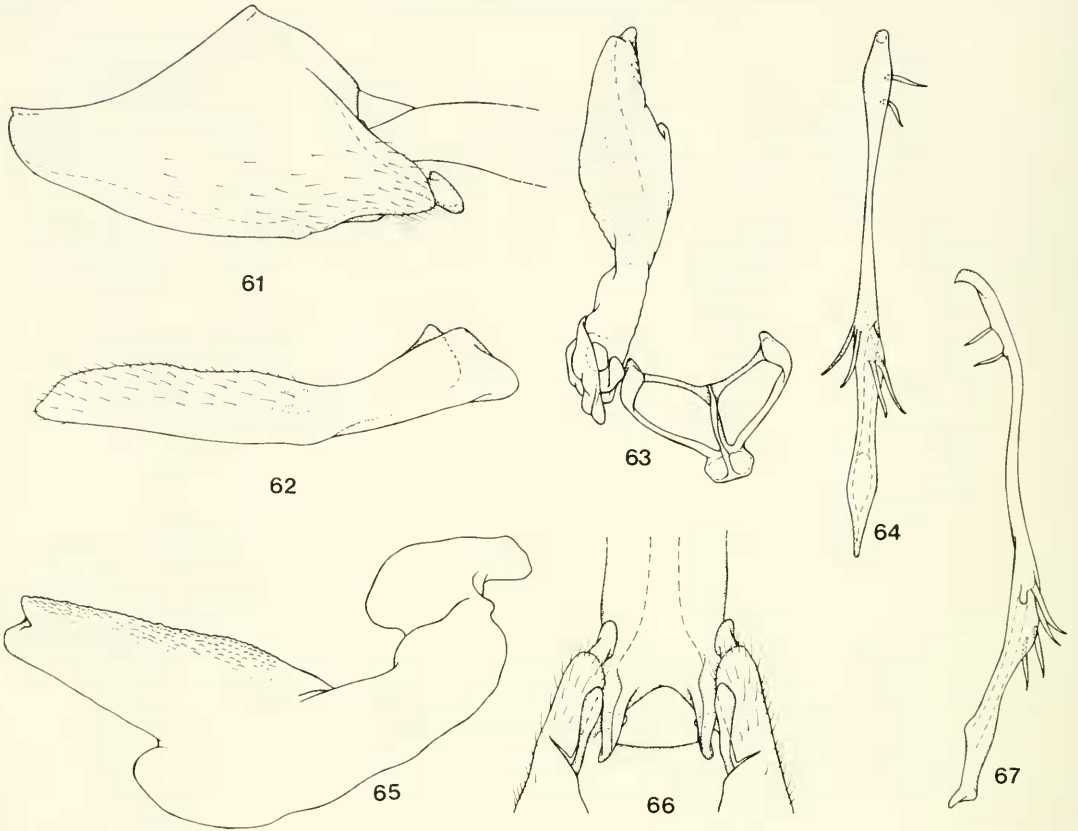
Dicolectia serrata, n. sp.

Figs. 56–60

LENGTH.—Male 6.90 mm.

General color reddish brown to black with distinctive, very broad, yellow, transverse band on forewings. Crown pale orange; pronotum purplish black; scutellum reddish brown; forewings reddish brown except for purplish black clavus basally and broad, yellow, transverse band from costa crossing middle of elavus; face pale orange. A beautifully marked species.

Head large, narrower than pronotum,



Figs. 61-67. *Evansolidia massa*, n. sp. 61. Pygofer, lateral view. 62. Plate, ventral view. 63. Connective and right style, dorsal view. 64. Aedeagus, dorsal view. 65. Right style, lateral view. 66. Terminus of pygofer and segment 10, ventral view. 67. Aedeagus, lateral view.

rounded anteriorly; eyes large, semiglobular; crown broad but narrower than width of eyes; pronotum short, median length less than median length of crown; scutellum large, median length greater than median length of crown; forewings and venation typical; clypeus broad, without a median, longitudinal carina; clypellus with lateral margins expanded distally.

MALE.—Pygofer with caudal margin damaged on holotype specimen; aedeagus asymmetrical, in ventral view long, tubular, with lateral serrate flange subapically, apex with small lobe laterally (Fig. 59), gonopore subapical on dorsal margin in expanded portion; style damaged in holotype specimen; plate long and narrow, heavily setose apically.

FEMALE.—Unknown.

HOLOTYPE (male).—COLOMBIA: Bolivar Batatal, 1938-1939, M. Althen-Dahl (UL).

REMARKS.—This species can be easily distinguished from *D. bifurcata* by the distinc-

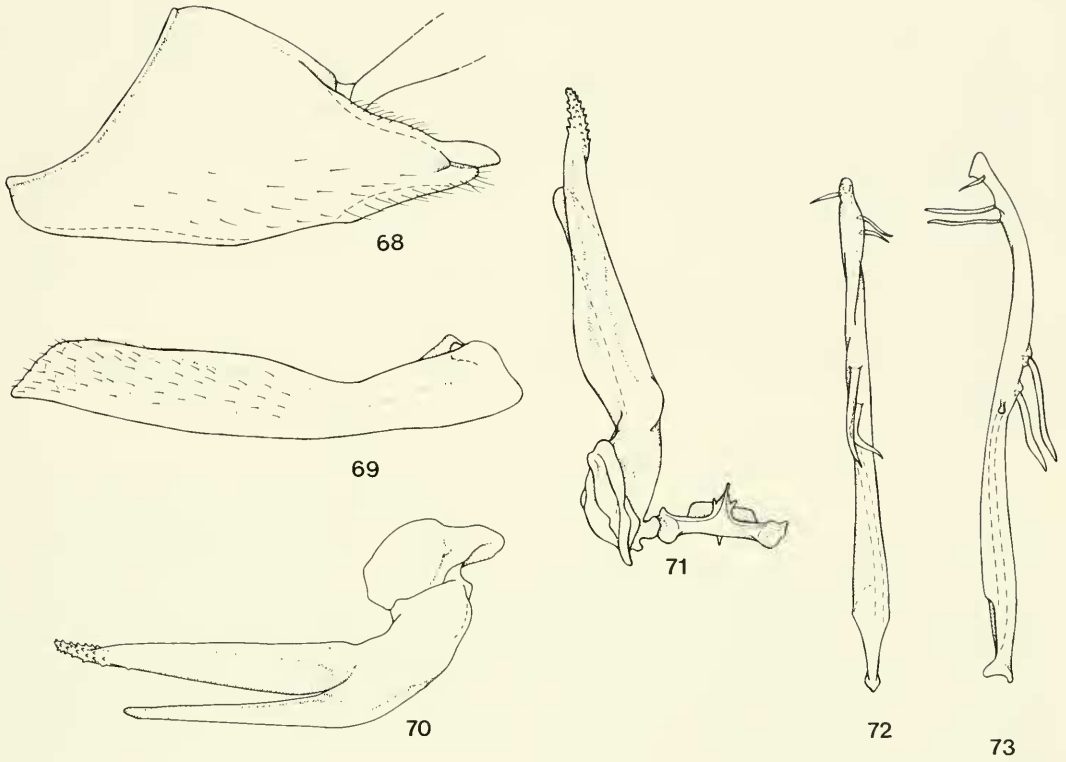
tive, broad, yellow, transverse band on the forewings and subapical serrate expanded portion of the aedeagus.

Evansolidia Nielson

Three species of the genus were treated in my revision of Coelidiini (Nielson 1982). Three additional new species are described here, and a revised key to the species is provided. The genus occurs in Brasil, Guyana, and more recently in Peru.

Key to males of *Evansolidia*

- 1. Style in lateral view with distal 2/3 broadly expanded or bilobed 2
- Style in lateral view with distal 2/3 not so or slightly expanded laterally 4
- 2(1). Aedeagus with distal and medial setae on shaft . 3
- Aedeagus with basal setae only on shaft (Nielson 1982, Fig. 989) *libera* (Walker)
- 3(2). Style with large, lateral lobe medially in lateral view (Fig. 65) *massa*, n. sp.



Figs. 68–73. *Evansolidia bifurcata*, n. sp. 68. Pygofer, lateral view. 69. Plate, ventral view. 70. Right style, lateral view. 71. Connective and right style, dorsal view. 72. Aedeagus, dorsal view. 73. Aedeagus, lateral view.

- Style with distal half asymmetrically bifurcate in lateral view (Fig. 70) *bifurcata*, n. sp.
- 4(1). Aedeagus with numerous setae or spines on shaft 5
- Aedeagus with basal setae only on shaft (Nielson 1982, Fig. 982) *bispinosa* Nielson
- 5(4). Aedeagus with setal arrangement subbasal and subapical, shaft constricted medially in dorsal view, gonopore medial (Nielson 1982, Fig. 974) *evansi* Nielson
- Aedeagus with setal arrangement on middle third of shaft, shaft with sides nearly parallel, gonopore subbasal (Fig. 78) *digitula*, n. sp.

Evansolidia massa, n. sp.
Figs. 61–67

LENGTH.—Male 8.00 mm, female 8.40–8.90 mm.

General color fuscous to black with sordid yellow markings; crown sordid yellow with two longitudinal, black bands extending along lateral borders of clypeus; pronotum and scutellum sordid yellow with black markings; forewings dark brown to black with yellow claval veins medially, broad, interrupted,

transverse, sordid yellow band from costa and crossing apex of clavus.

Head narrower than pronotum, anterior margin broadly rounded; crown narrow, width distally narrower than width of eyes, eyes elongate ovoid; pronotum and scutellum large, median length of each greater than median length of crown; forewings and venation typical; clypeus long and narrow, without a median, longitudinal carina.

MALE.—Pygofer with small caudodorsal lobe (Fig. 61); aedeagus asymmetrical, in lateral view long, narrow, tubelike, sinuate with 2 long lateral setae subapically and 4 long ventral setae basad of middle of shaft (Fig. 67), shaft constricted between subbasal and subapical setae, expanded subapically in dorsal view (Fig. 64), gonopore basad of middle of shaft on lateral margin near subbasal setae; style large, ornate, somewhat compressed laterally along ventral half, with large, ventral, preapical lobe and small cleft apically (Fig. 65); plate long and narrow (Fig. 62).

FEMALE.—Seventh sternum with truncate caudal margin.

HOLOTYPE (male).—BRASIL: Amazon, Fonteboa, no date, no collector (NR). Allotype (female), same data as holotype (NR). Paratypes: three females, same data as holotype (NR), one female, same data as holotype (author's collection); PERU: Ucayule, one female, no date, no collector (NR).

REMARKS.—This species is most nearly related to *E. libera* (Walker) but is distinguished by the presence of an additional subbasal setae and two subapical setae on the aedeagal shaft and by the distinctive configuration of the style.

Evansolidia bifurcata, n. sp.

Figs. 68–73

LENGTH.—Male 8.60–9.00 mm, female 9.20 mm.

General color dark brown to blackish with yellow and ivory markings on pronotum, scutellum, and forewings; crown yellow with two black, longitudinal bands extending to face and bordering lateral margins of clypeus; forewings with large, yellow, subquadrate spot on middle of clavus and pale yellow to ivory markings near middle of costa and apex of clavus, veins with small, yellow spots.

Head narrower than pronotum, rounded along anterior margin; crown broad, narrower than width of eyes; eyes large, semiglobular; pronotum large, median length greater than median length of crown; scutellum large; forewing and venation typical; clypeus long and narrow, without a median, longitudinal carina.

MALE.—Pygofer in lateral view with small caudodorsal lobe (Fig. 68); aedeagus asymmetrical, in lateral view long, tubular, slightly sinuate, with 2–3 long ventral setae near middle of shaft and 3 long dorsal setae subapically (Fig. 73), narrow groove on distal 1/4 of dorsal margin in dorsal view (Fig. 72), gonopore small, near middle of shaft on lateral margin; style ornate, asymmetrically bifurcate, distal arm dentate apically (Fig. 70); plate long and narrow, constricted at basal 1/4, obliquely truncate distally (Fig. 69).

FEMALE.—Seventh sternum with caudal margin produced somewhat distally along middle and slightly sinuate.

HOLOTYPE (male).—BRASIL: Amazon, Fonteboa, no date, no collector (NR). Allo-

type (female), BRASIL: Amazon, Manaus, no date, Roman (NR). Paratypes: one male and one female, same data as holotype and allotype, respectively (author's collection); BRASIL: Obidos, one female, 19.VII.no year (OSU); BRASIL: Amazon, sup., one male, no date, Olivenca (NR); PERU: Huanuco, Tingo Maria, one male, 27.I.1974, L. Huggert (UL).

REMARKS.—This species can be distinguished from all other known species of *Evansolidia* by its unique, asymmetrically bifurcate style.

Evansolidia digitula, n. sp.

Figs. 74–79

LENGTH.—Male 7.80 mm.

General color dark brown to black with ivory or yellow markings. Crown sordid ivory with two broad, black, longitudinal bands extending along lateral borders of clypeus; pronotum and scutellum black with sordid ivory markings; forewings dark brown to black with veins ivory on middle of clavus and cells translucent medially, large, translucent spot above and below apex of clavus, cells basad of apical series partially translucent, veins blackish.

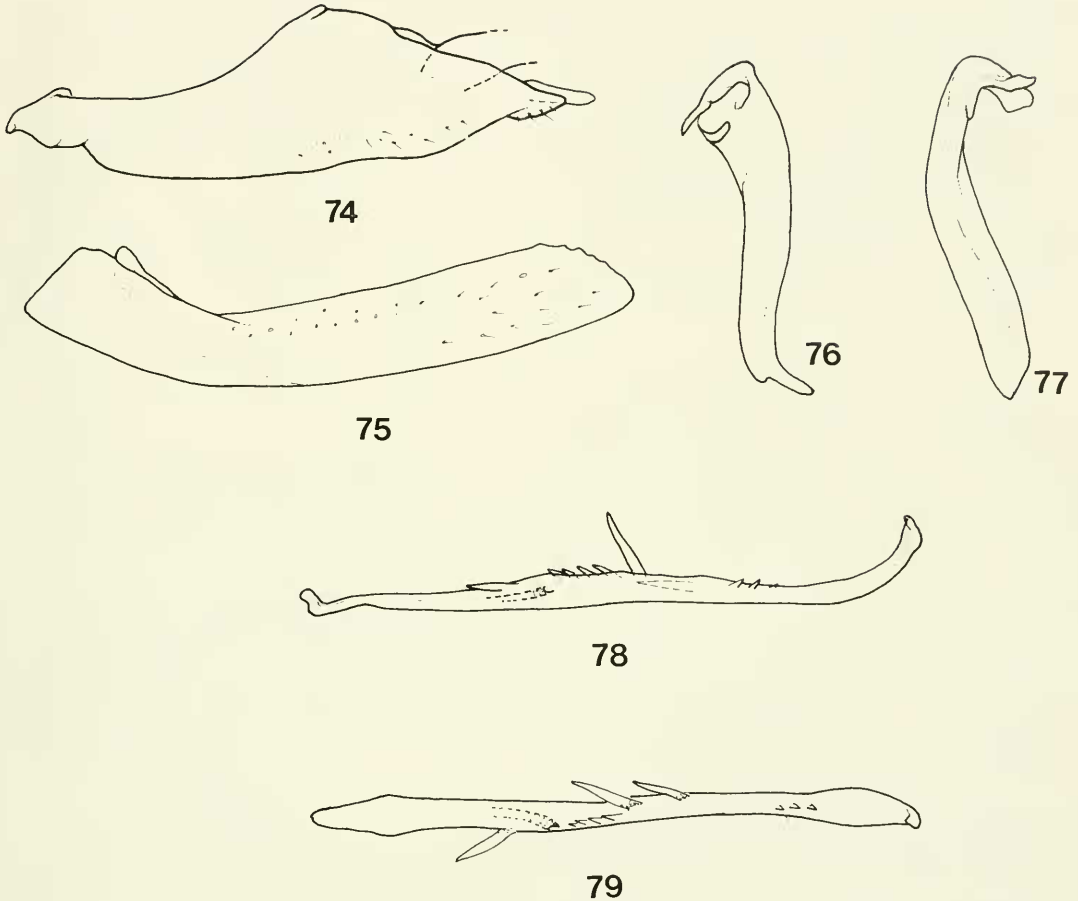
Head large, slightly narrower than pronotum; crown broad but narrower than width of eyes; eyes large, semiglobular; pronotum and scutellum large, each with median length greater than median length of crown; forewings and venation typical; clypeus long and narrow, without a median, longitudinal carina.

MALE.—Pygofer in lateral view with small caudodorsal lobe (Fig. 74); aedeagus asymmetrical, in lateral view long, narrow, somewhat tubular, slightly curved laterally at apical 1/4 (Fig. 78), in dorsal view with 3 stout setae on middle third of shaft on dorsal margin, one basad of gonopore and 2 distad, row of 4 short setae between and 3 very small, spinelike setae about middle of distal third (Fig. 79), gonopore small, basad of middle of shaft on lateral margin; style long, slender with digitate, subapical, lateral process on inner margin (Fig. 76); plate long and narrow (Fig. 75).

FEMALE.—Unknown.

HOLOTYPE (male).—PERU: Huanuco, Tingo Maria, 27.I.1974, L. Huggert (UL).

REMARKS.—From *E. bispinosa*, to which it is similar in some male genital characters,



Figs. 74–79. *Evansolidia digitula*, n. sp. 74. Pygofer, lateral view. 75. Plate, ventral view. 76. Right style, dorsal view. 77. Right style, lateral view. 78. Aedeagus, lateral view. 79. Aedeagus, dorsal view.

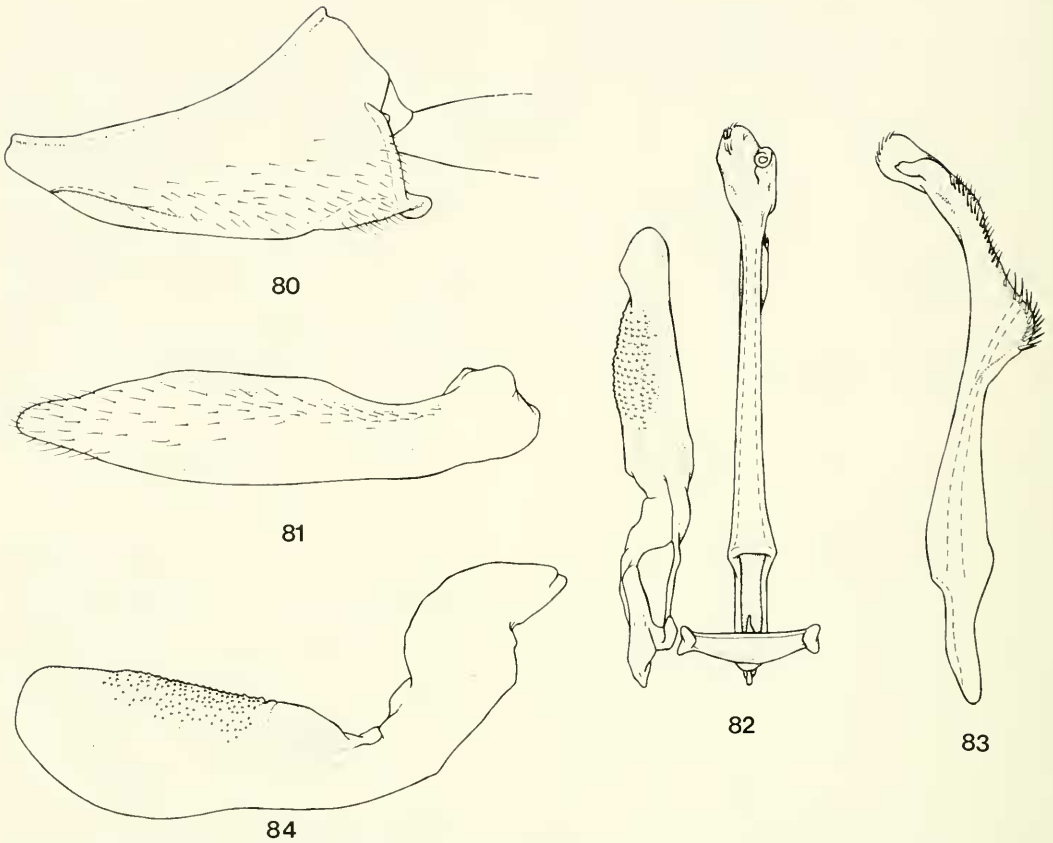
digitula can be separated by the presence of additional setae, large and small, on the shaft of the aedeagus and by the subapical, digitate process on the style.

Spinolidia Nielson

Four species of the genus were treated in my revision of *Coelidiini* (Nielson 1982). Two new species are described here with a revised key to the species. The genus occurs primarily in northwestern South America; only a single record is known in Brasil.

Key to the males of *Spinolidia*

- 1. Aedeagus with numerous setae on distal third of shaft. 2
- Aedeagus with fewer setae, spicules or spines on middle of shaft 3
- 2(1). Aedeagus with an oblique row of dense setae subapically on lateral side of shaft and a few setae distally (Nielson 1982, Fig. 1012) *osborni* Nielson
- Aedeagus with a row of sparse setae ventrally on about distal third of shaft and several setae distally (Fig. 83) *sarmenta*, n. sp.
- 3(1). Style in lateral view narrow with obvious medial constriction, narrow toward apex 4
- Style in lateral view constricted subbasally, very broad at distal third (Fig. 85) *magna*, n. sp.
- 4(4). Plate with subbasal constriction and expanded before apex; aedeagus with large gonopore 5
- Plate not subbasally constricted, margins gradually tapered toward apex (Nielson 1982, Fig. 1031); aedeagus with small, cryptic gonopore *spinolai* Nielson
- 5(5). Aedeagus with numerous spicules and serrations medially on shaft (Nielson 1982, Fig. 1020) *spiculata* Nielson



Figs. 80–84. *Spinolidia sarmenta*, n. sp. 80. Pygofer, lateral view. 81. Plate, ventral view. 82. Connective, right style, and aedeagus, dorsal view. 83. Aedeagus, lateral view. 84. Right style, lateral view.

- Aedeagus with a small tuft of setae medially on shaft (Nielson 1982, Fig. 1026)
- *flavifrons* (Osborn)

Spinolidia sarmenta, n. sp.
Figs. 80–84

LENGTH.—Male 7.50 mm.

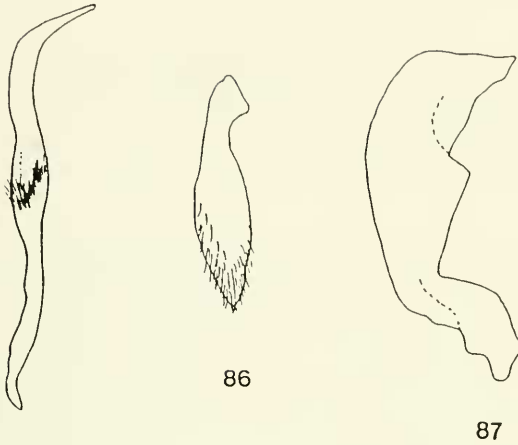
General color dark brown; crown tannish with blackish markings on disc; pronotum black except for small, tannish spots on dorsal surface; scutellum tannish with black markings anteriorly; forewings translucent, veins black; clypeus tan with broad, longitudinal, black bands on either side of middle.

Head narrower than pronotum, broadly rounded anteriorly; crown broad, slightly narrower than width of eyes; eyes large, semi-globular; pronotum large, median length greater than median length of crown; scutellum large; forewing and venation typical; clypeus without a median, longitudinal carina.

MALE.—Pygofer in lateral view with small caudodorsal lobe (Fig. 80); aedeagus asymmetrical, in lateral view long, curved laterally at distal 1/3, with enlarged flange on ventral margin just below middle, small subapical lobe laterally, numerous setae on ventral margin at distal 1/3 from near medial flange to near apex, few setae at apex (Fig. 83), gonopore large on ventral margin near base of submedial flange; style very large, somewhat compressed laterally, in lateral view greatly enlarged at distal 2/3, rounded distally, spiculated on portion of dorsal surface (Fig. 84); plate elongate, constricted subbasally, tapered distally (Fig. 81).

FEMALE.—Unknown.

HOLOTYPE (male).—BOLIVIA: Cochabamba, Chipare Mts., 5,000 ft, Cochabamba to Villa Tunari, 30.III.1976, C. R. Ward (USNM). Paratype: one male, BOLIVIA: El Limbo, 2,000 m, Dept. Cochabamba, __.XI.1962, F. H. Walz (MSU).



85

Figs. 85–87. *Spinolidia magna*, n. sp. 85. Aedeagus, lateral view. 86. Plate, ventral view. 87. Right style, lateral view.

REMARKS.—This species is similar to *S. osborni* Nielson in male genital characters but can be distinguished by the broader style, by the position and configuration of the ventral flange, and by more numerous setae on the ventral margin of the aedeagus.

Spinolidia magna, n. sp.
Figs. 85–87

LENGTH.—Male 7.20 mm.

General color brown; crown tannish with deep brown markings on disc and suffused with light brown on anterior margin; eyes reddish; pronotum black with numerous small, tannish spots on surface; forewings translucent, veins deeply marked; clypeus and clypellus light tannish, with broad, longitudinal, black band on either side of middle.

Head narrower than pronotum; crown broad, width equal to width of eyes, anterior margin rounded; pronotum large, median length greater than median length of crown; forewing and face similar to other species of *Spinolidia*; clypeus without a median, longitudinal carina.

MALE.—Pygofer similar to *flavifrons* (Osborn); aedeagus long, narrow, without preapical lobe, small tuft of fine setae medially on shaft near gonopore (Fig. 85); style very large in lateral view, broad at distal 2/3 with apex curved laterally and bluntly pointed (Fig. 87); plate similar to *flavifrons* (Fig. 86).

FEMALE.—Unknown.

HOLOTYPE (male).—BOLIVIA: Coroico, no date, no collector, in the Melichar collection (MMB). Paratypes: one male, PERU: Callanga, no date, no collector (NR); one male, BOLIVIA: ____, 1898, Noualhier (MNHN); one male, PERU: Dept. Huanuco, Vic. San Domingo, Andes, 3,000 m, 11–23.XI.1937, F. Woytkowski, No. 3812 (author's collection).

REMARKS.—From *flavifrons*, to which it is similar in general habitus and certain male genital characters, *magna* can be separated by the very broad style.

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